

REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1-19 are currently pending in the instant application. Claim 4 has been amended. Claims 1 and 8 are independent. Reconsideration of the present application is earnestly solicited.

Reasons for Entry of Amendment

As discussed in greater detail hereinafter, Applicants respectfully submit that the rejections under 35 U.S.C. § 103(a) are improper and should immediately be withdrawn. Accordingly, the finality of the Final Office Action mailed on May 14, 2002 should be withdrawn.

If the Examiner persists in maintaining his rejections, Applicants submit that this Amendment was not presented at an earlier date in view of the fact that Applicants are responding to new grounds of rejection and the Examiner's use of Official Notice (and Applicants' subsequent traversal) in a Final Office Action. In accordance with the requirements of 37 CFR 1.116, Applicants respectfully request entry and consideration of the foregoing amendments as they remove issues for appeal and place the current application in a condition for allowance.

Claim Objections

Claim 4 has been amended to depend from claim 2. Accordingly, the claim warning concerning claims 3 and 4 should be withdrawn.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ishihara (U.S. Patent No. 4,567,958) in view of Izumi (U.S. Patent No. 6,155,371). This rejection is respectfully traversed.

Applicants submit that the Examiner's alleged combination fails to teach each and every element of the claimed invention. In addition, the Examiner has improperly extracted only portions of the teachings of the prior art of record while ignoring the teachings of the references as a whole. Further, the Examiner has not identified a single teaching in the prior art of record to support the Examiner's motivation to combine the alleged teachings of Ishihara and Izumi. Accordingly, Applicants submit that it would not have been obvious to modify the teachings of Ishihara in view of Izumi.

The Examiner has misinterpreted the teachings of Izumi and Ishihara. In addition, the Examiner has not identified a teaching or suggestion from the prior art of record that actually supports the Examiner's alleged motivation to combine references. The Examiner states that "the teaching of Izumi is not merely the use of a threaded bolt to fix a pulley half to a transmission main

shaft *but more generally the use of a threaded bolt to fix a pulley half to any shaft.*” Neither Izumi or Ishihara state this broad teaching.

In fact, despite allegedly teaching this broad concept, both Izumi and Ishihara deliberately choose to do the opposite of that suggested by the Examiner. Applicants respectfully request clarification from the Examiner as to why Izumi and Ishihara would do deliberately utilize an arrangement that is actually opposite to that which it is alleged to teach, e.g., Applicants are confused as to why the Izumi device is deliberately shown with a male threaded crankshaft engaged with a nut when this reference allegedly teaches teaches a female threaded crankshaft engaged with a bolt.

For example, the Examiner alleges that “Izumi teaches in figure 4, a fixed pulley half of a variable radius pulley fixed to a shaft with a bolt.” (page 3 of the Final Office Action) This statement simply ignores what is actually taught in Figure 4 of Izumi. The crankshaft of Izumi is clearly secured to a pulley assembly with the benefit of a nut and a male threaded crankshaft. Further, the Examiner will appreciate that Izumi includes a support bearing on the end of the threaded crankshaft (element 206 in Izumi), e.g. the bearing is engaged with the end of the crankshaft. Clearly Izumi deliberately chose to avoid the use of crankshaft having a female threaded end.

However, the Examiner alleges that this simply can be ignored. The Examiner alleges that it would have been obvious “to fix the pulley half to the crankshaft by a bolt engaged in a bolt within the crankshaft **to provide a**

greater engagement without increasing the overall length of the crankshaft.” (emphasis added) Applicants request clarification as to where in the prior art of record this alleged motivation is derived and/or described. Instead, this alleged motivation appears to be nothing more than the Examiner’s opinion about how these references can allegedly be combined. Applicants appreciate the Examiner’s insight, but respectfully submit that a motivation to combine must come from the prior art of record, not the opinions of the Examiner. In summary, it appears that the Examiner’s position is that Izumi *implicitly* teaches that which it deliberately and *explicitly* chose to avoid, see Figure 4.

In addition, Applicants’ own specification teaches numerous benefits, e.g., improved strength, avoiding rusting and seizing of the nut, and machinability, of the claimed invention. However, the prior art of record does not teach or suggest any reason to support the Examiner’s modification of the Ishihara device. The Examiner will recall that Applicants have already identified numerous problems associated with arrangements such as those experienced by devices like that of Izumi and Ishihara. See DESCRIPTION OF THE BACKGROUND ART, paragraphs 0002 through 0009. Applicants have advanced a unique combination of elements, e.g., the claimed invention, that overcomes these problems.

The Examiner has not identified an art-recognized problem nor has the Examiner identified a reference that teaches a solution. Accordingly, absent

Applicants' own teachings provided in their own patent application, the Examiner would not have had any reason to attempt to modify Ishihara as alleged by the Examiner, e.g., heretofore, there was nothing wrong with either of the Ishihara or Izumi devices.

The Examiner allegedly relies upon the "teachings" of Izumi to modify Ishihara. The Examiner has worded the rejection to state that "Izumi teaches in figure 4, a fixed pulley half of a variable radius pulley half fixed to a shaft with a bolt." However, this statement carefully ignores that the "bolt" (element 240 of Izumi) is affixed to the driven side of the transmission, e.g. main shaft (element 186 of Izumi). In the claimed invention, the fixed pulley half is connected to the end of the crankshaft, e.g. the driving side of the transmission (e.g., please see element 224 on the crankshaft clearly shown in Figures 4 and 5).

Applicants submit that the Examiner has not stated a motivation to combine the alleged teachings of the prior art of record that is supported by actual evidence in the record. Accordingly, this rejection should be withdrawn and the present application should be passed to Issue.

Accordingly, reconsideration and withdrawal of the claim rejections is respectfully requested. Moreover, the Applicants respectfully submit that the instant application is in a condition for allowance.

As to the dependent claims, Applicants respectfully submit that these claims are allowable due to their dependence upon an allowable independent claim, as well as for additional limitations provided by these claims.

In accordance with the above amendments and remarks, Applicants respectfully submit that the claims of the instant application define over the prior art of record. Accordingly, reconsideration and withdrawal of the claim rejections are respectfully requested.

CONCLUSION

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but rather to merely show the state-of-the-art, no further comments are necessary with respect thereto.

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

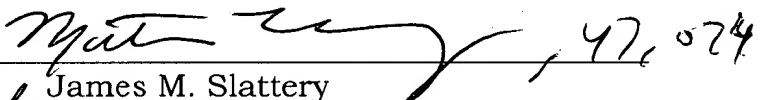
In the event there are any matters remaining in this application, the Examiner is invited to contact Matthew Shanley, Registration No. 47,074 at (703) 205-8000 in the Washington, D.C. area.


Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Version with Markings to Show Changes Made

IN THE CLAIMS

The claims have been amended as follows:

4. (Amended) The V-belt transmission according to claim [1] 2, wherein the female screw portion is arranged in a position axially inward of the drive end of the crankshaft and the fixed pulley half.